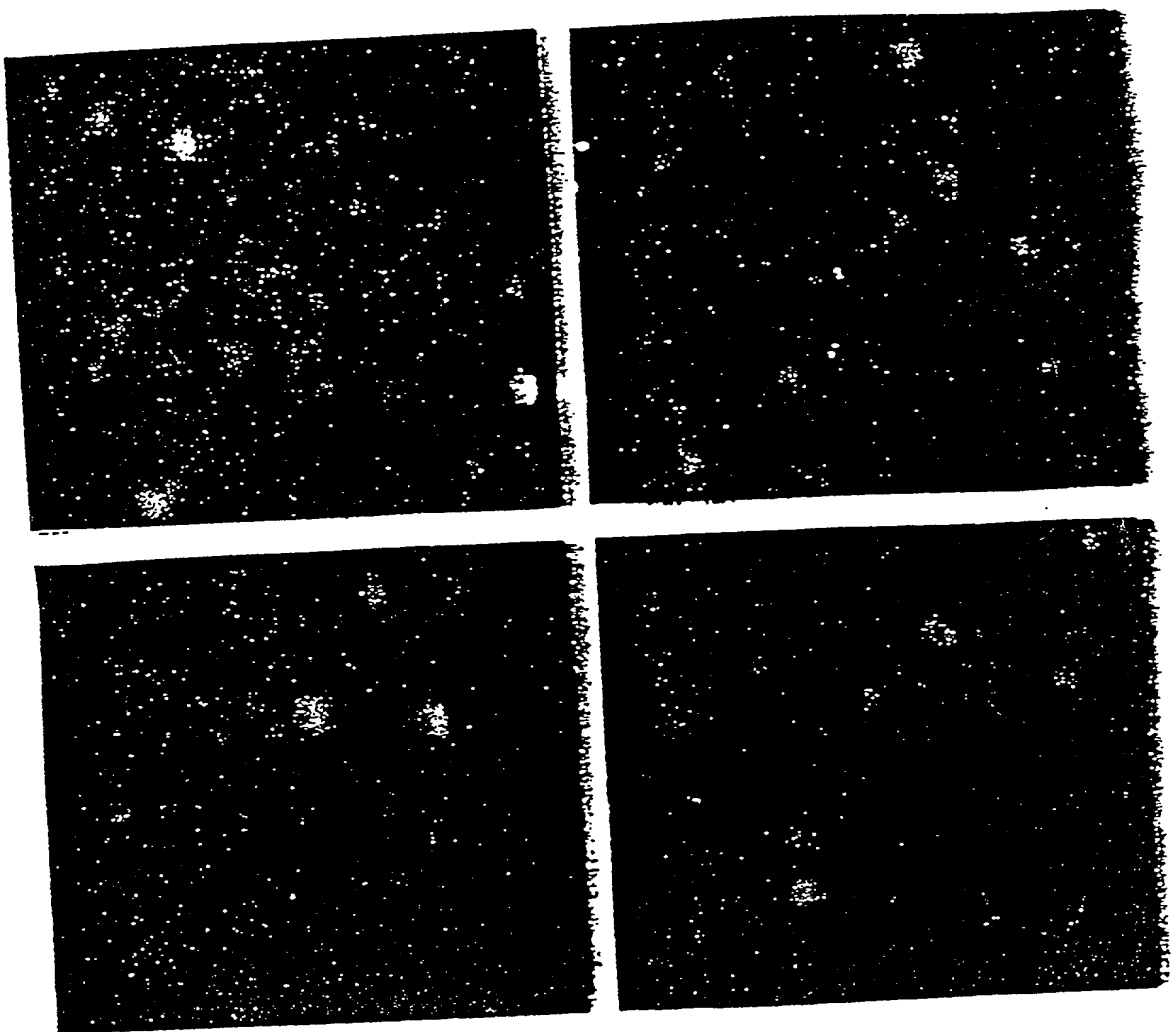


Figure 1

44



09927150-101901

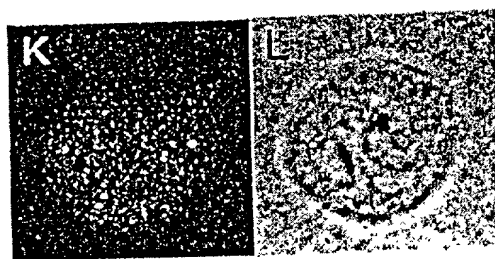
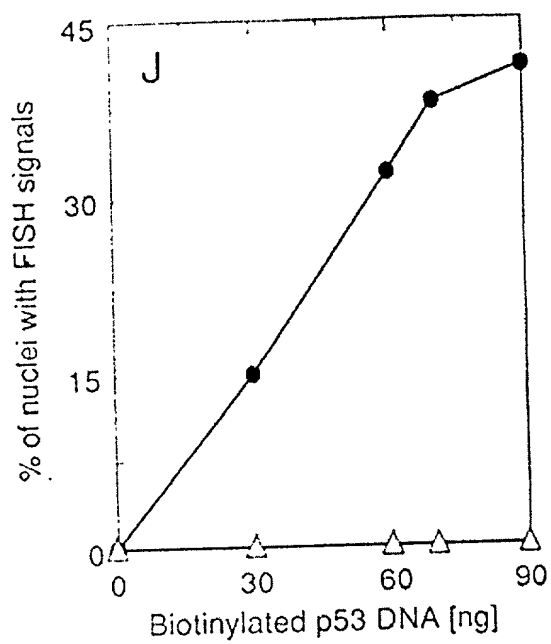
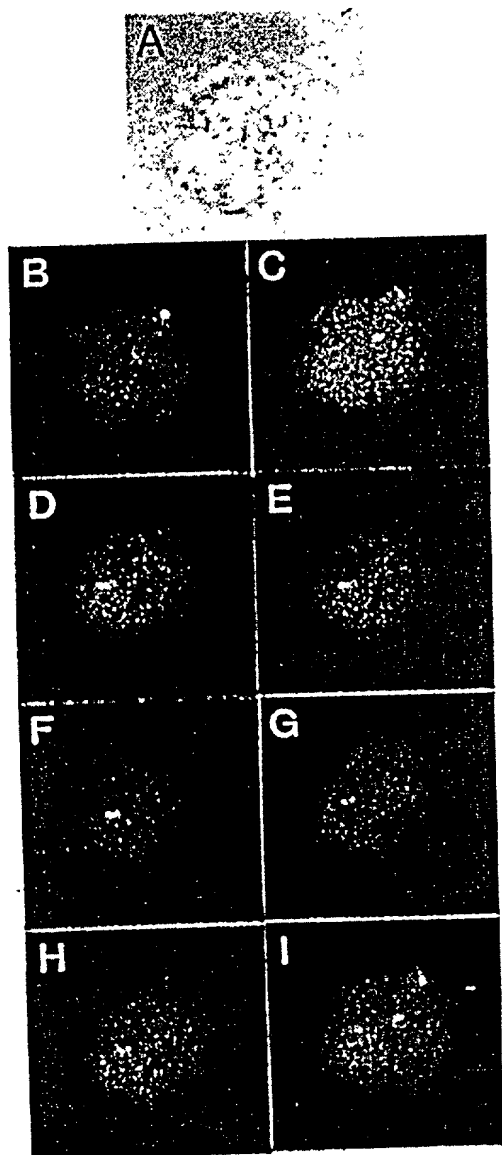


Figure 2

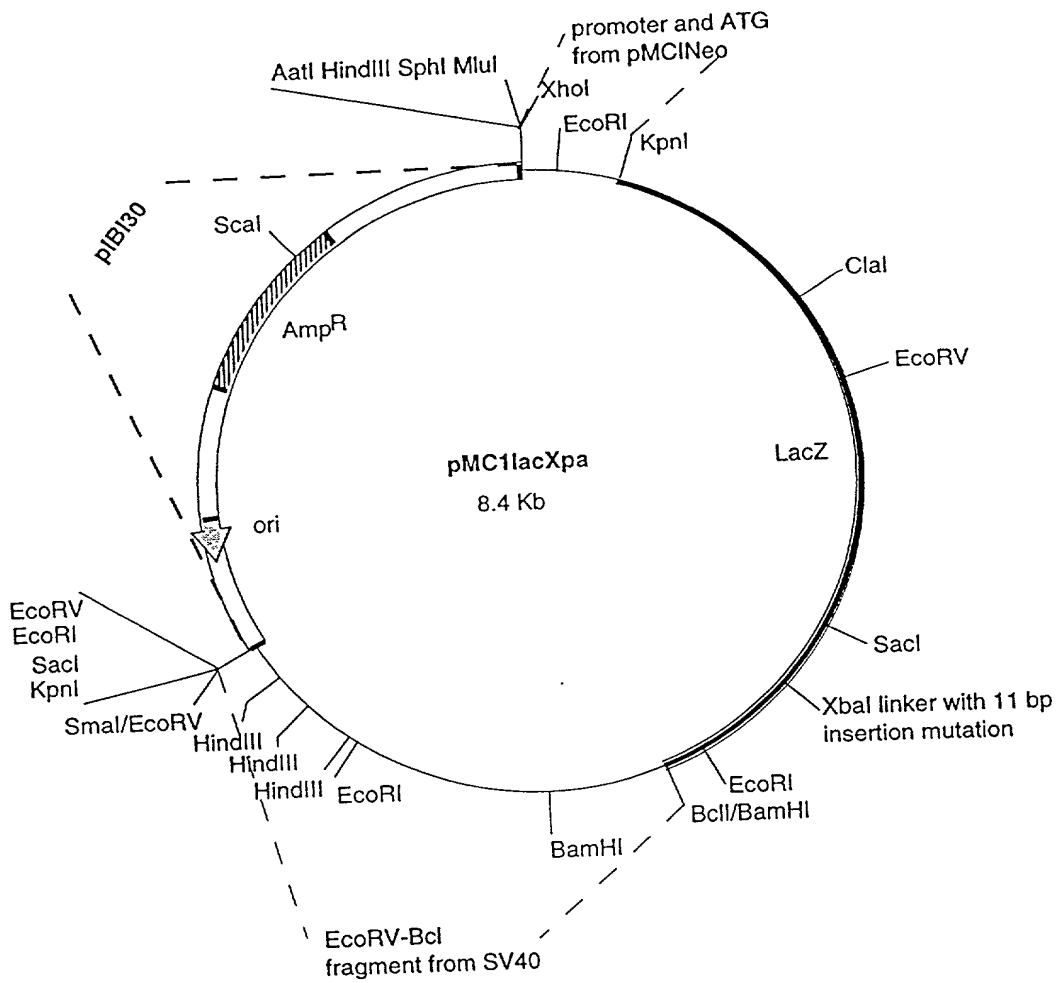


FIGURE 3

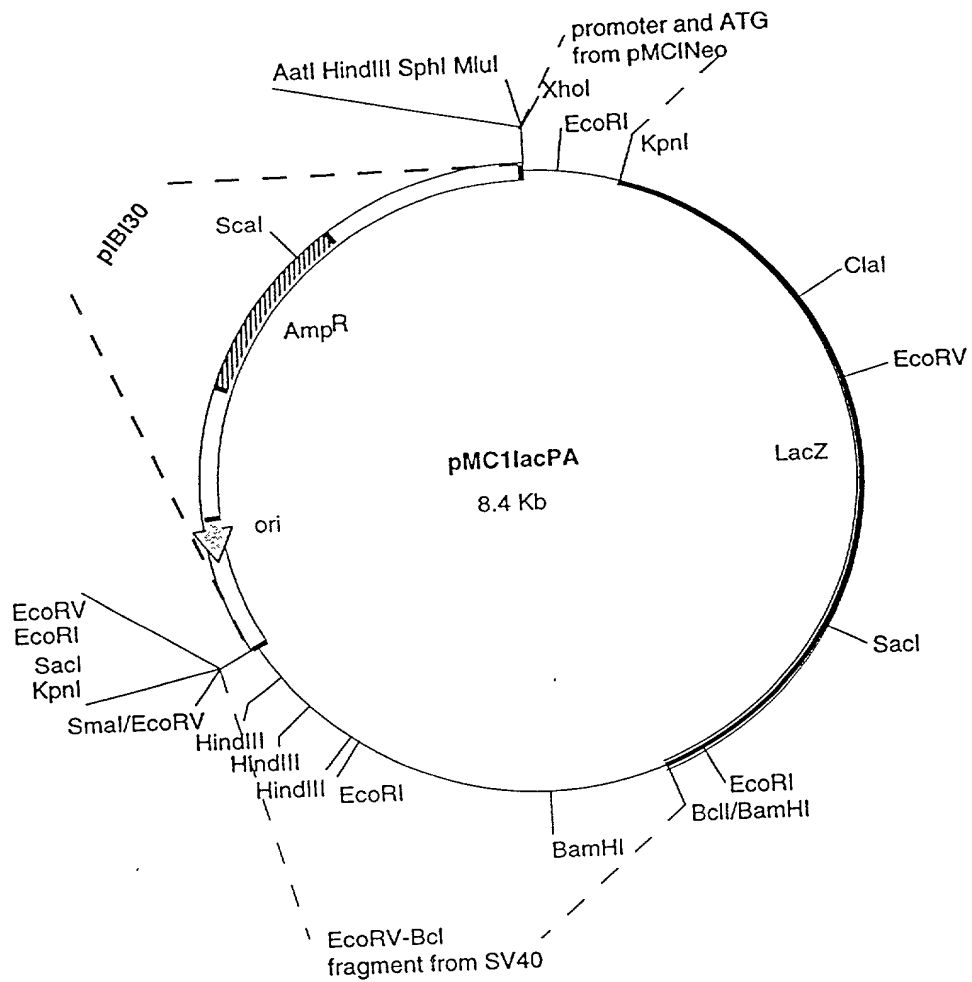
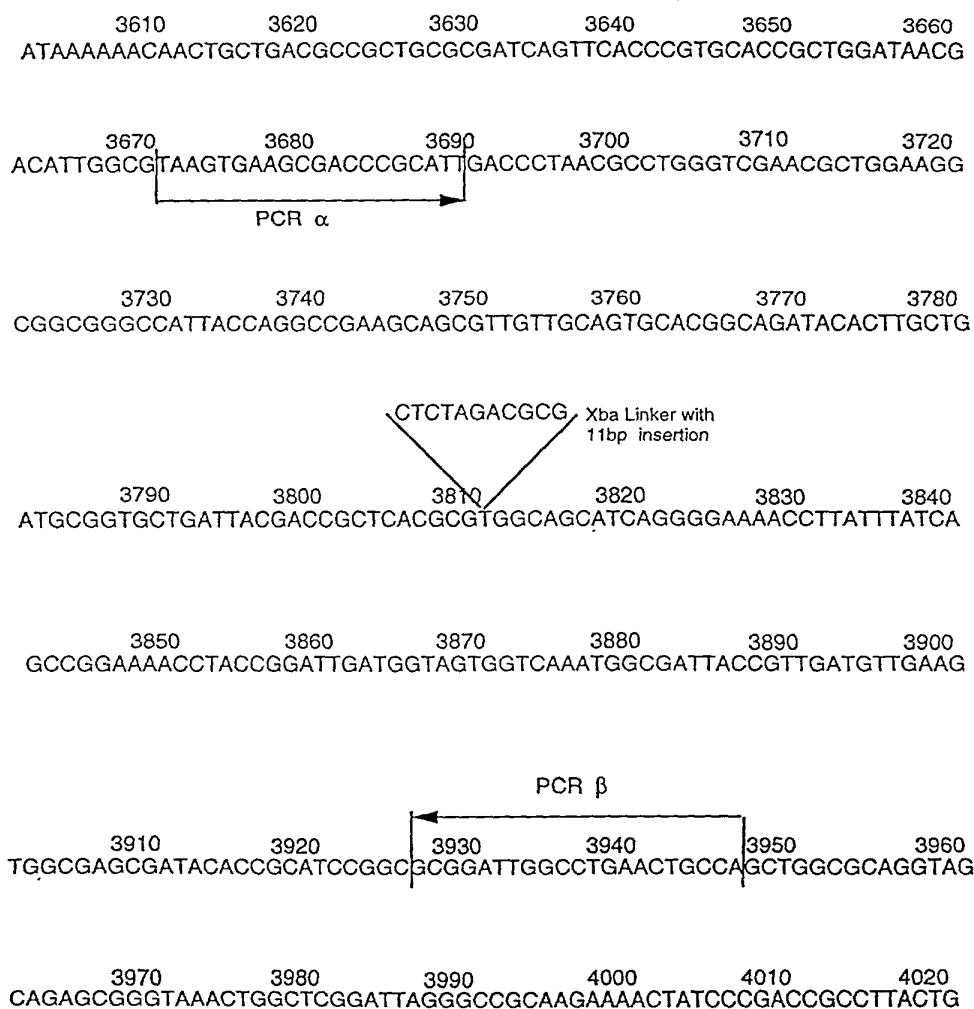


FIGURE 4

Figure 5



TEST FOR ALTERATION OF AN INSERTION MUTATION IN THE lacZ  
( $\beta$ -GALACTOSIDASE) GENE OF EUKARYOTIC EXPRESSION VECTOR

| Experimental Sample | Injected Plasmid, 276-mer DNA and RecA Protein |                  | Number of Injected Surviving Cells | Number of Surviving Cells Scoring Blue | Surviving Cells Scoring Blue (%) |
|---------------------|--|------------------|------------------------------------|--|----------------------------------|
| 1                   | pSV- $\beta$ -gal                              | -276-mer - RecA  | 168                                | 21                                     | 12.5                             |
| 2                   | pMC1lacpa                                      | - 276-mer - RecA | 98                                 | 9                                      | 9.2                              |
| 3                   | pMC1lacXpa                                     | - 276-mer - RecA | 173                                | 0                                      | 0                                |
| 4                   | pMC1lacXpa                                     | + 276-mer - RecA | 103                                | 0                                      | 0                                |
| 5                   | pMC1lacXpa                                     | + 276-mer + RecA | 168                                | 6                                      | 3.6                              |

Figure 6

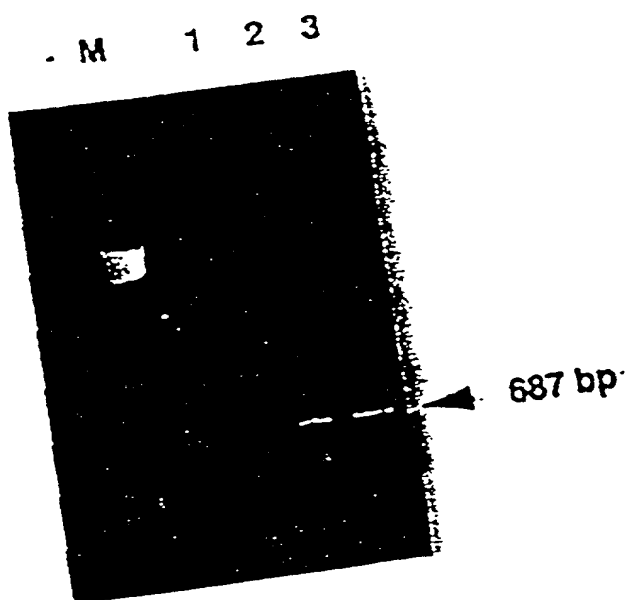


Figure 7A

Figure 7B

Control ( $\Sigma$ CF)  
T $\Sigma$ CF Microinjected  
T $\Sigma$ CF P-L



1 2 3 4 5 6

300



Figure  
8A

1 2 3 4 5



Figure  
8B



1 2 3

299

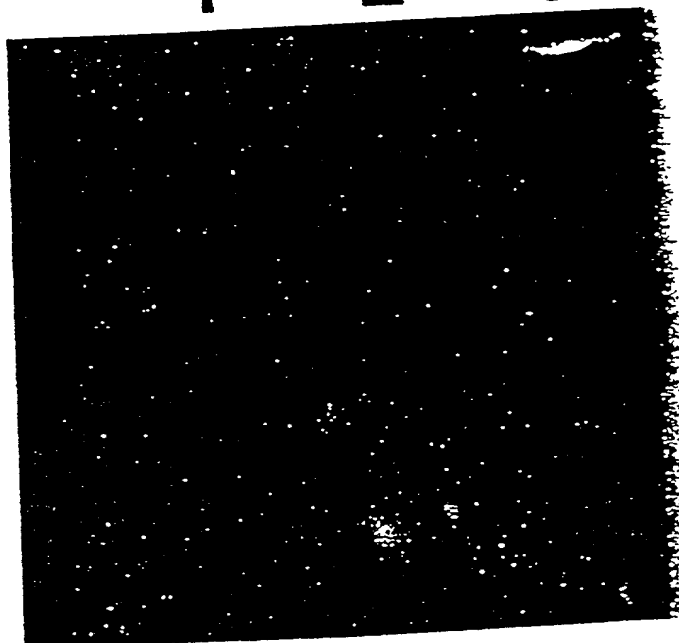


Figure  
9

09927150-104801

# Scheme for recombination assay

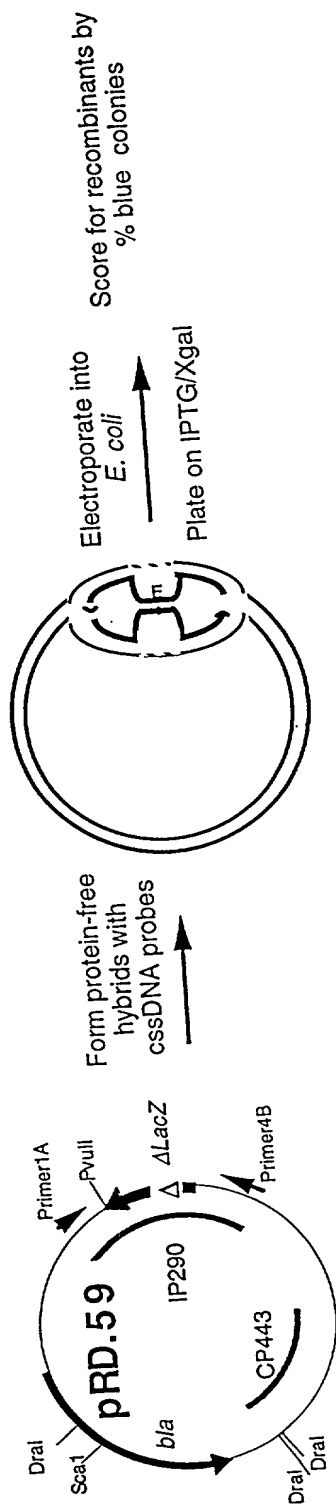


Figure 10

09927150-104904

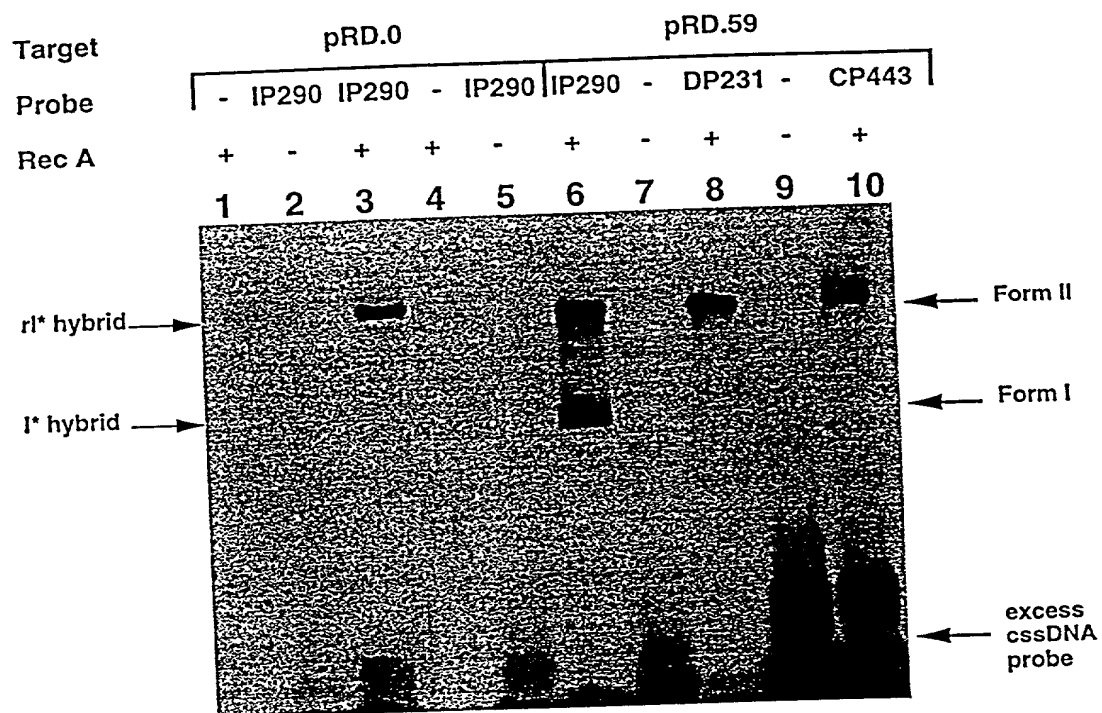


FIGURE 11

# cssDNA Probe:Target Hybrids Enhance Homologous Recombination

| Target Probe | RecA coating | Host   | %Recombinant / total colonies |
|--------------|--------------|--------|-------------------------------|
| pRD.59 -     | +            | RecA+  | 0                             |
| -            | +            | RecA - | 0                             |
| pRD.59 IP290 | -            | RecA+  | 0                             |
| IP290        | -            | RecA - | 0                             |
| pRD.59 IP290 | +            | RecA+  | 3                             |
| IP290        | +            | RecA - | 0                             |
| pRD.59 DP290 | -            | RecA+  | 0                             |
| DP290        | -            | RecA - | 0                             |
| pRD.59 DP290 | +            | RecA+  | 0                             |
| DP290        | +            | RecA - | 0                             |
| pRD.59 CP443 | -            | RecA+  | 0                             |
| CP443        | -            | RecA - | 0                             |
| pRD.59 CP443 | +            | RecA+  | 0                             |
| CP443        | +            | RecA - | 0                             |

Figure 12



Figure 14A

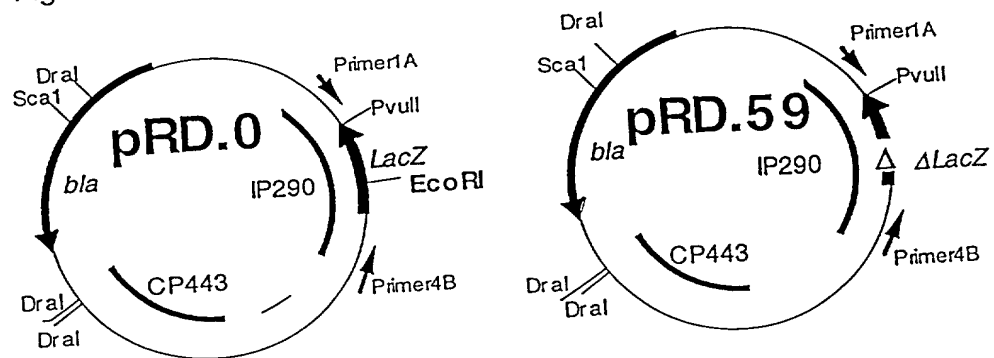
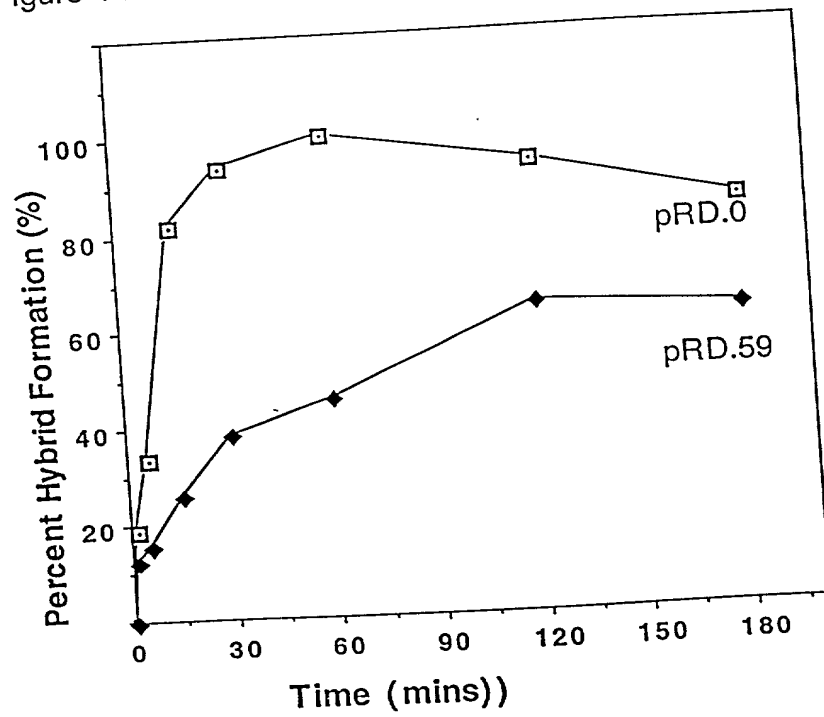


Figure 14B



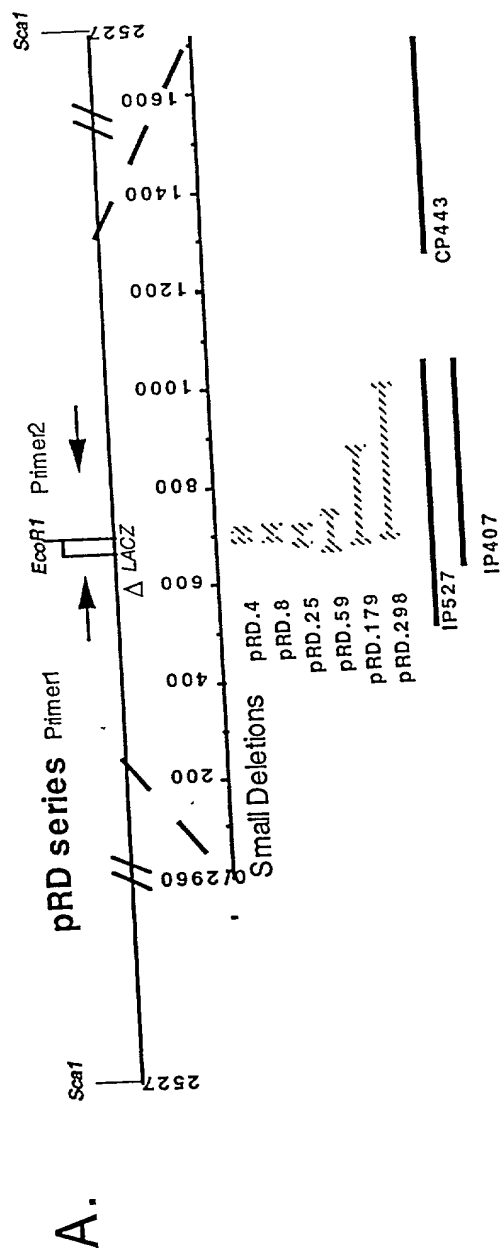


Figure 15A

Figure15B

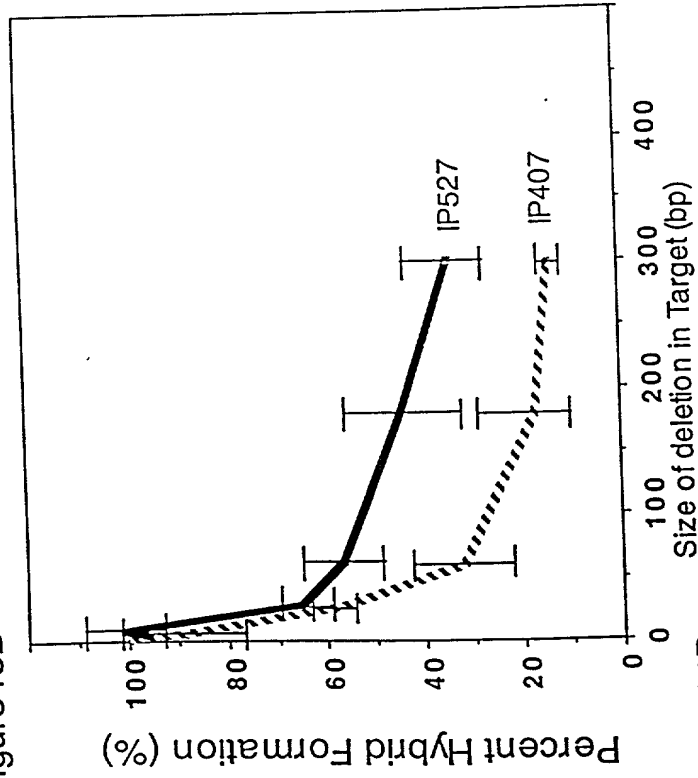


Figure15D

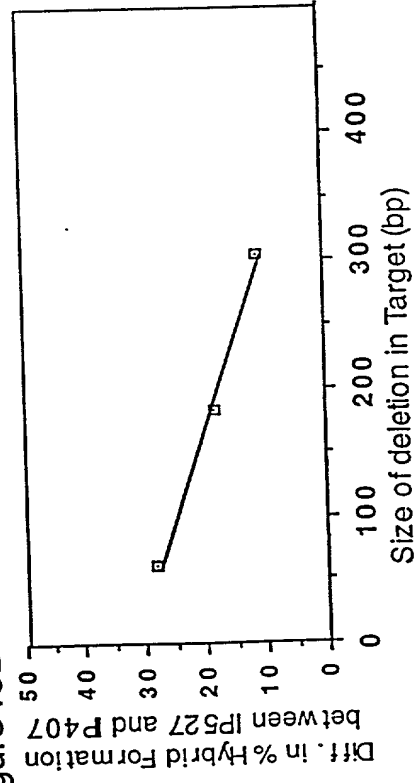
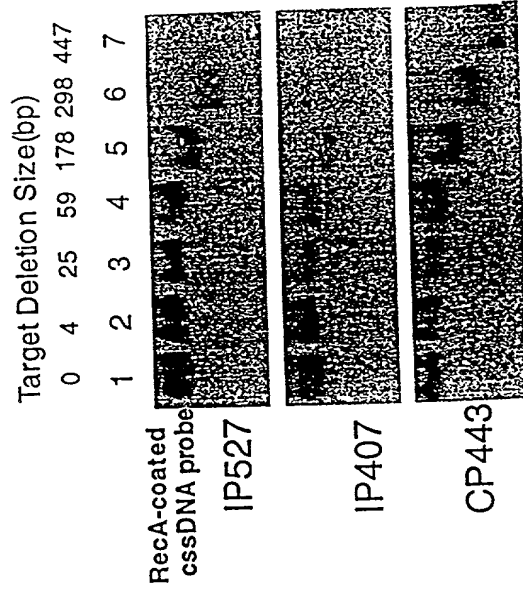


Figure15C





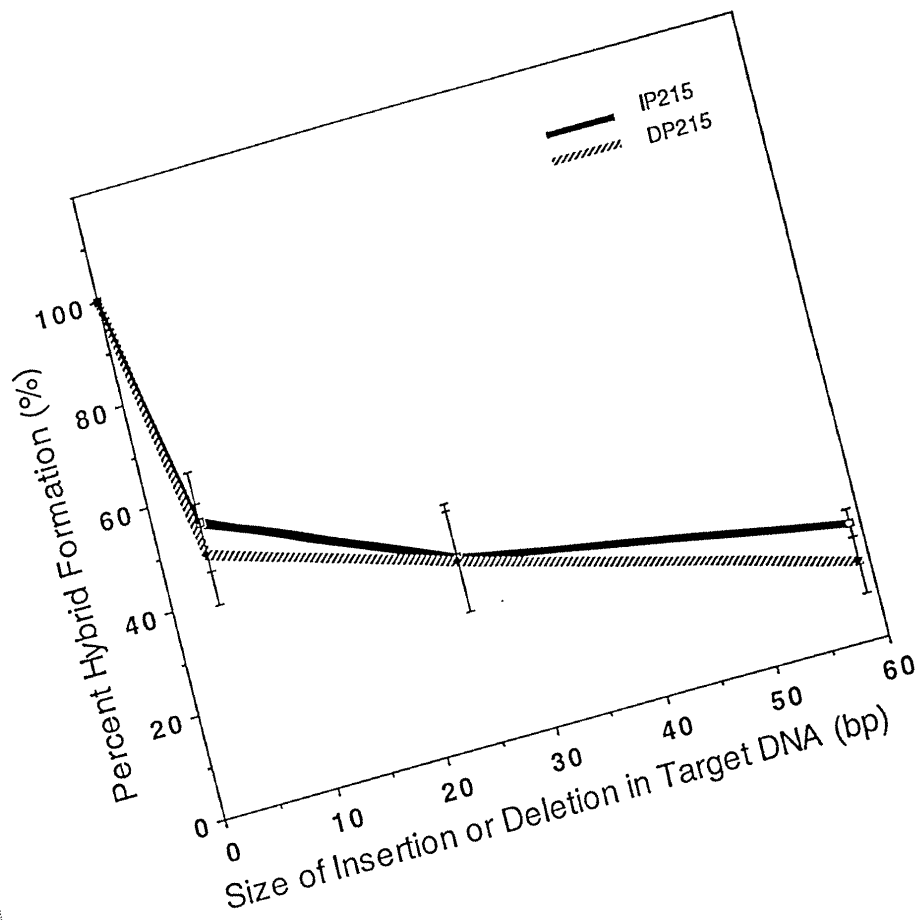
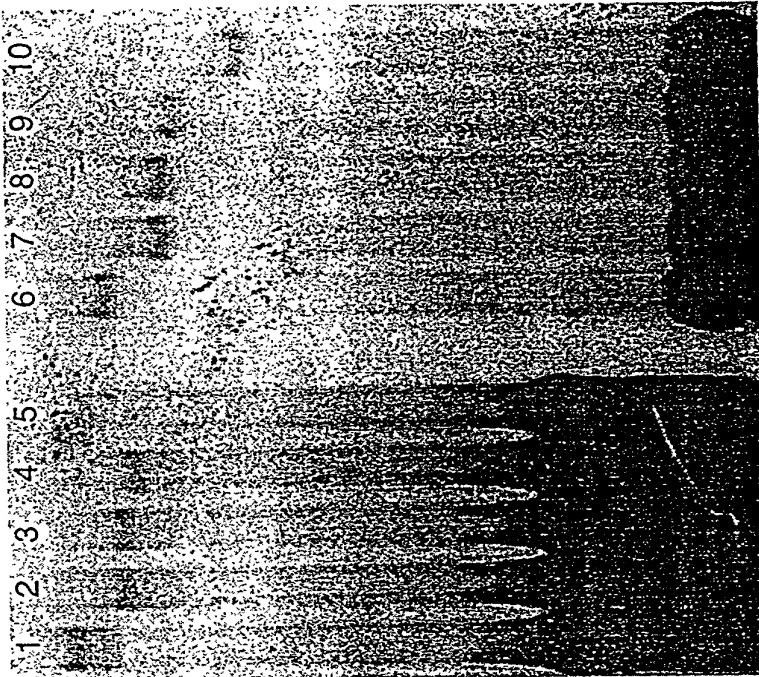


Figure 16

Figure 17A

| Probe | P1246   | CP443   |
|-------|---------|---------|
|       | pRD.0   | pRD.0   |
|       | pRD.448 | pRD.448 |
|       | pRD.453 | pRD.453 |
|       | pRD.559 | pRD.559 |
|       | pRD.967 | pRD.967 |

Target



FormIII Marker

pRD.0  
pRD.448/453  
pRD.559  
pRD.967

Excess probe

Excess probe

Figure 17B

| TARGET<br>DNA | AMT.<br>HOMOL. (bp) | RELATIVE<br>HYBRIDIZATION |
|---------------|---------------------|---------------------------|
| pRD.0         | 1246                | 1.0                       |
| pRD.448       | 798                 | 0.8                       |
| pRD.453       | 793                 | 0.8                       |
| pRD.559       | 687                 | 0.8                       |
| pRD.967       | 279                 | 0.3                       |

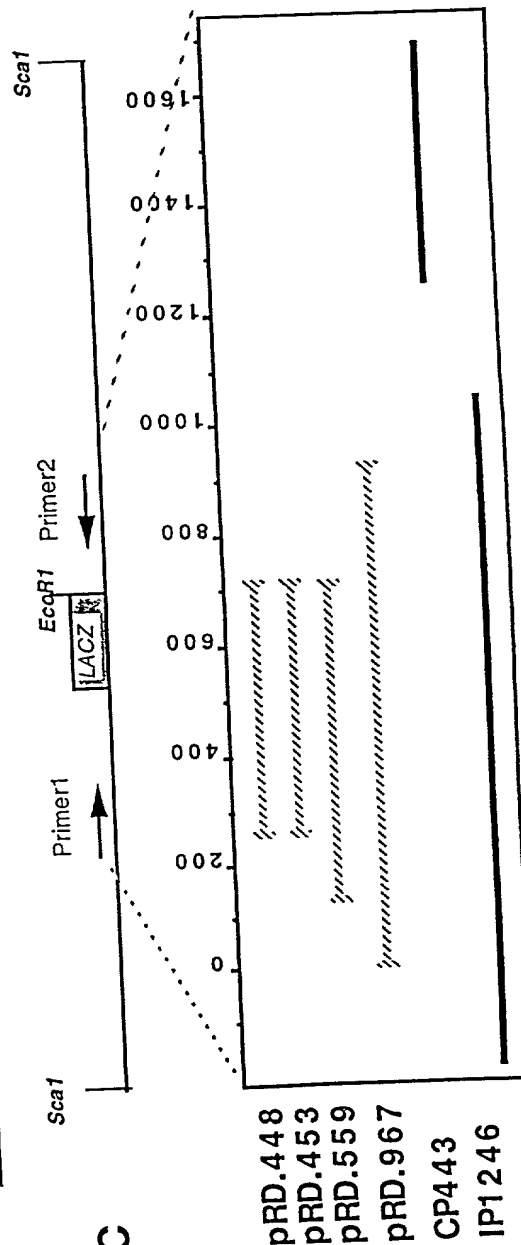


Figure 17C

Figure 18

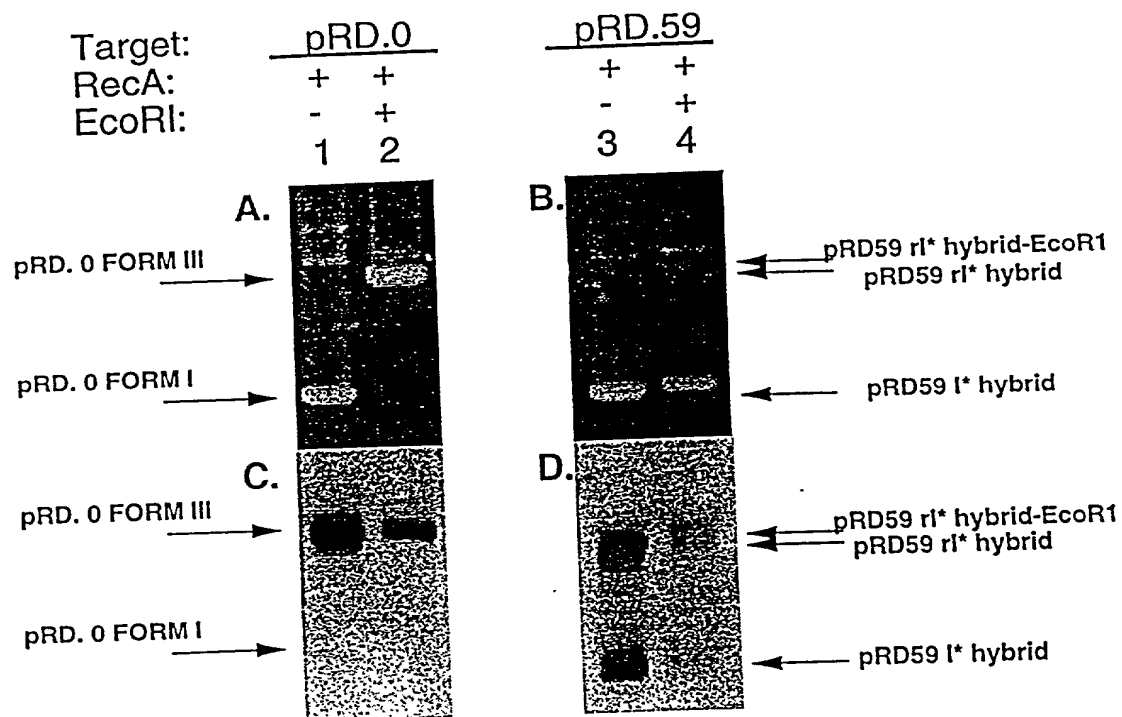
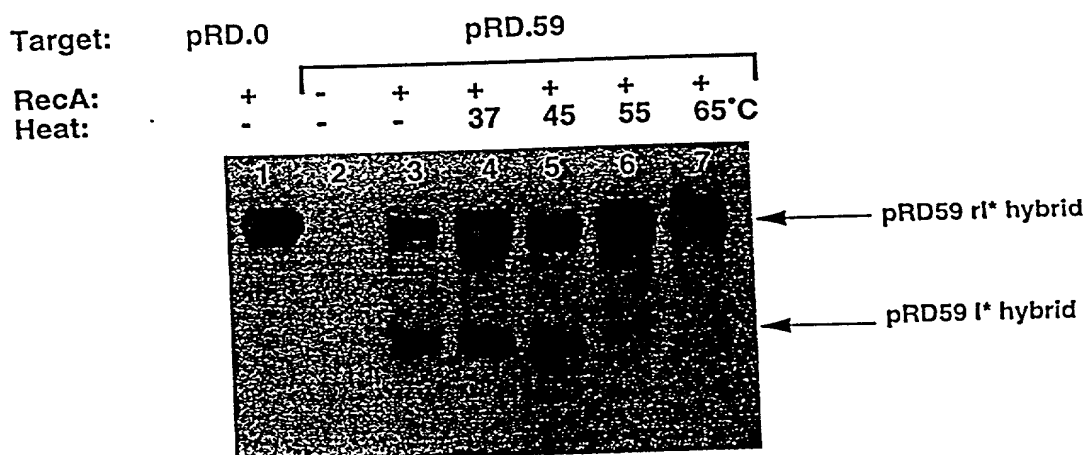
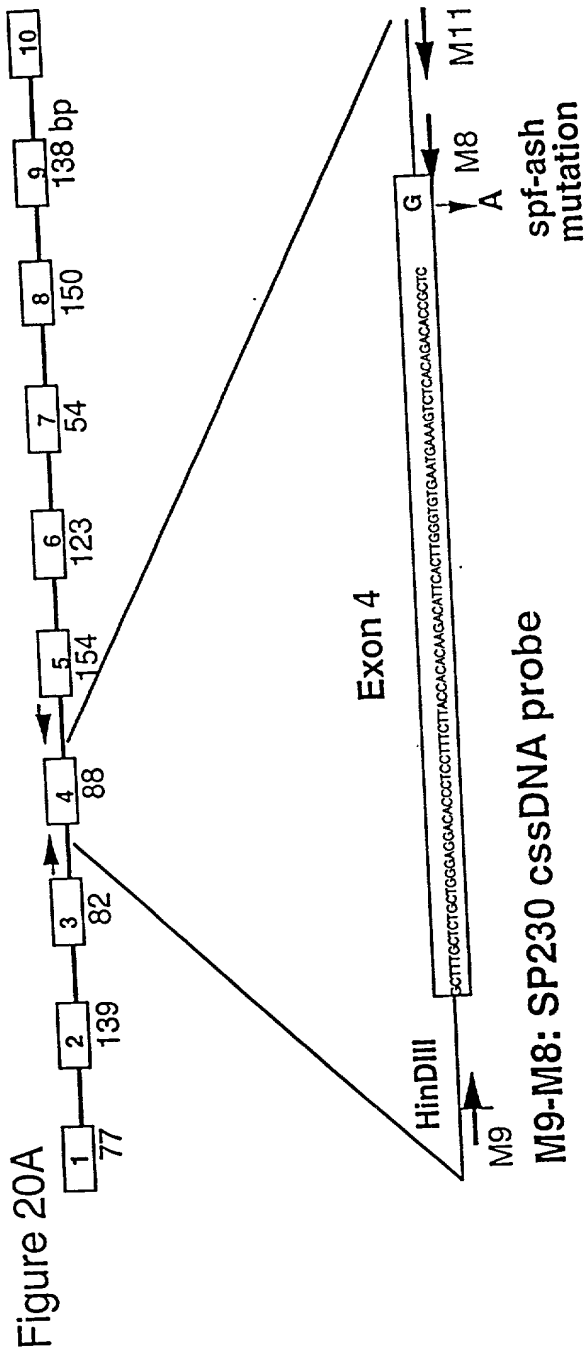


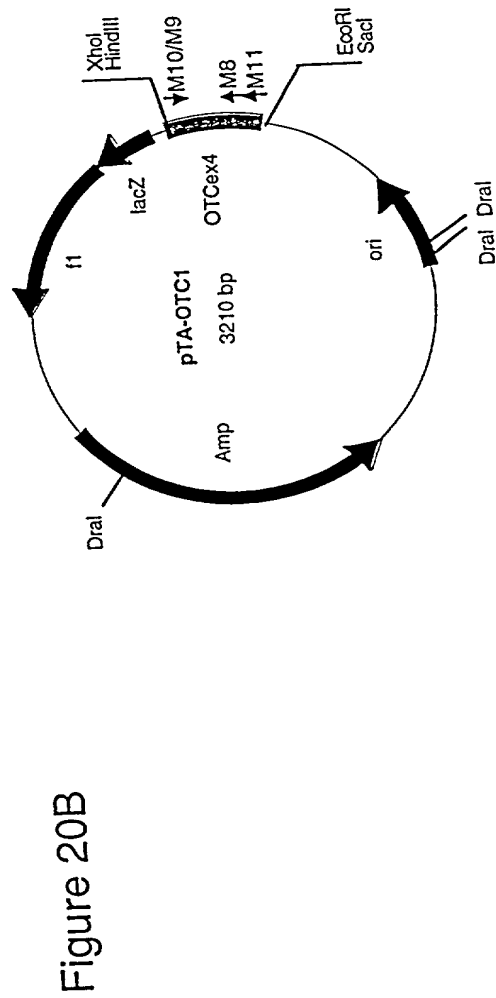
Figure 19



# Mouse Ornithine Transcarbamylase Gene

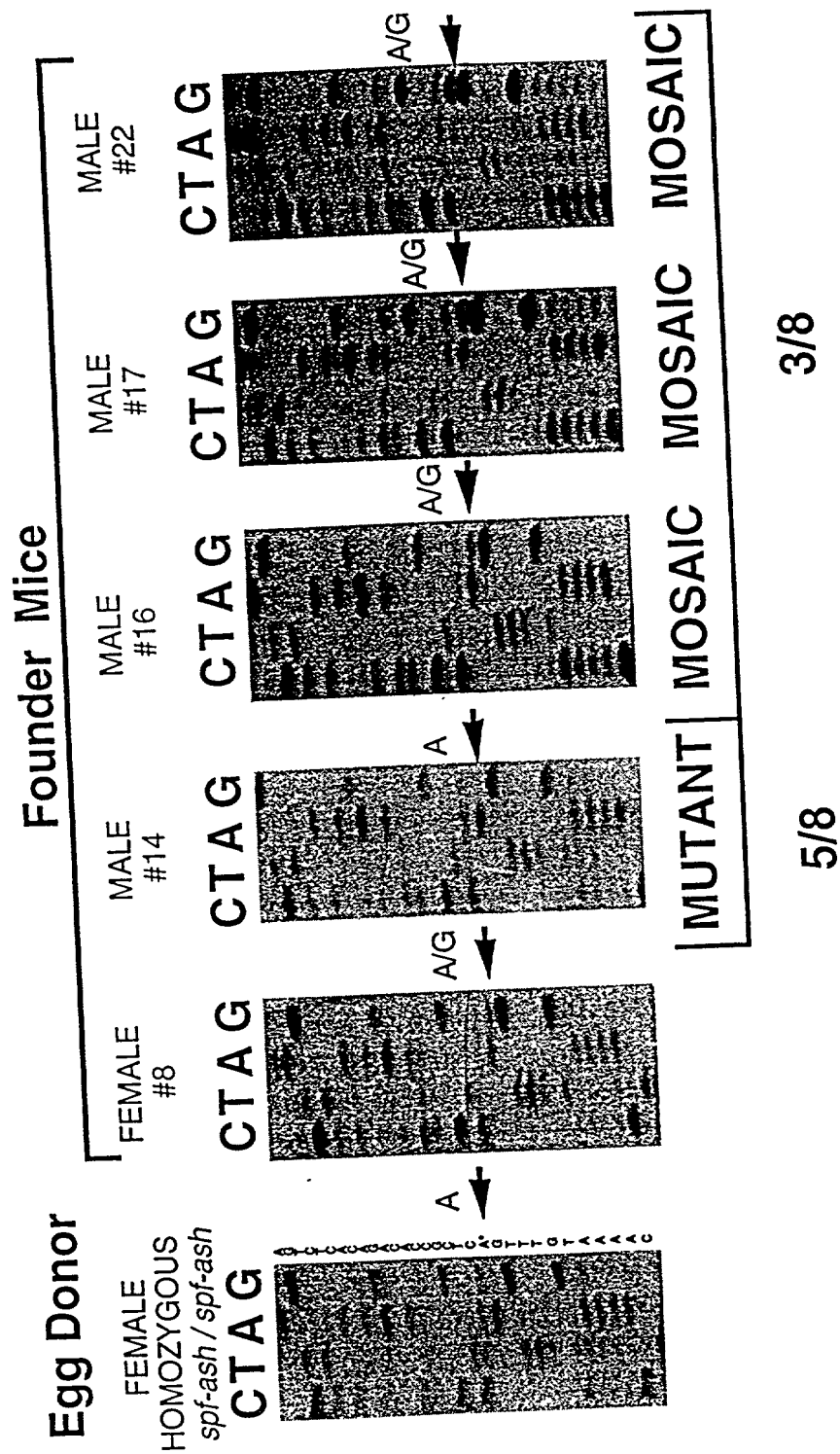


## M9-M8: SP230 cssDNA probe

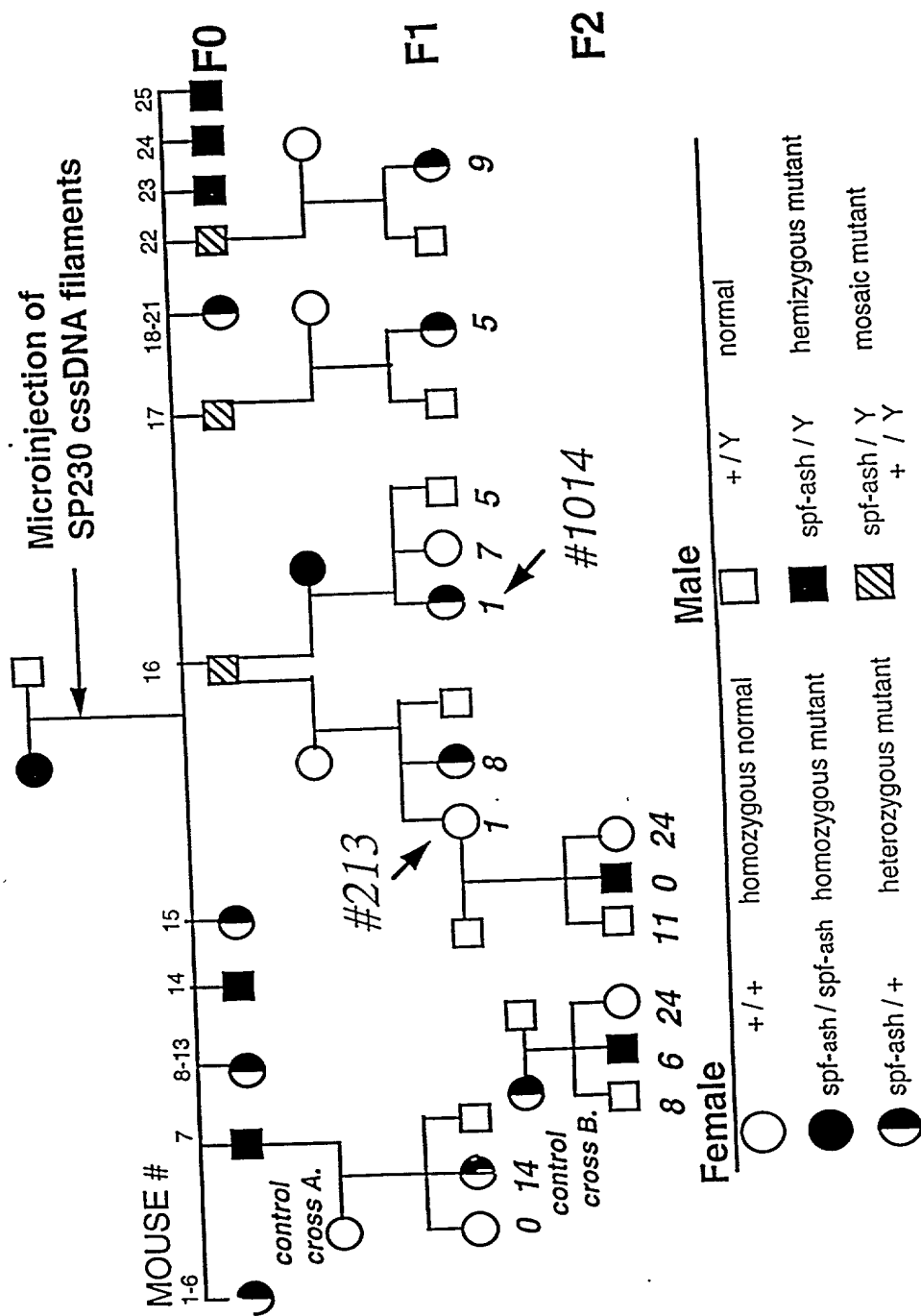


**Figure 21**

**OTC exon4 DNA sequence determination**



**Figure 22** Germline Transmission of EHR Corrected OTC<sup>+</sup> Allele



**Figure 23** Germline Transmission of Corrected Allele of F0 Male #16

